What is claimed is:

1. An optical fiber holding device, comprising:

an optical fiber;

a strip-shaped member, having a rectilinear groove in which the optical fiber is accommodated, and a gel substance contacting with the optical fiber is filled; and

a substrate on which the optical fiber and the strip-shaped member are mounted.

2. An optical fiber holding device according to claim 1, wherein the optical fiber is not contacted with a wall surface of the groove of the strip-shaped member.

3. An optical fiber holding device, comprising:

an optical fiber having a grating;

a heater for heating the grating to a predetermined temperature distribution;

a strip-shaped member, having a rectilinear groove in which the optical fiber is accommodated, and a gel substance contacting with the optical fiber is filled; and

a substrate on which the heater and the strip-shaped member are mounted.

4. An optical fiber holding device according to claim 3, wherein the optical fiber is not contacted with a wall surface of the groove of the strip-shaped member.

5. An optical fiber holding device according to claim 3, wherein the optical fiber is contacted with the heater.

6. An optical fiber holding device according to claim 3, further comprising:

a Peltier element for keeping temperature level of the

predetermined temperature distribution of the grating at a predetermined level; and

a temperature sensor for detecting the temperature of the optical fiber used to control the Peltier element.

7. An optical fiber holding device according to claim 1, wherein a positioning mark is provided on the substrate, which is used for positioning the strip-shaped member on the substrate.

8. An optical fiber holding device according to claim 3, wherein a positioning mark is provided on the substrate, which is used for positioning the strip-shaped member on the substrate.

9. An optical fiber holding device according to claim 1, wherein the gel substance includes a silicon compound.

10. An optical fiber holding device according to claim 3, wherein the gel substance includes a silicon compound.

11. An optical fiber holding device according to claim 1, wherein the strip-shaped member is made of quartz.

12. An optical fiber holding device according to claim 3, wherein the strip-shaped member is made of quartz.

13. An optical dispersion-equalizer, comprising:

an optical fiber having a grating;

a heater for heating the grating to a predetermined temperature distribution;

a heater control circuit for controlling a temperature of the heater;

a strip-shaped member, having a rectilinear groove in which the optical fiber is accommodated, and a gel substance contacting with the optical fiber is filled;

a substrate on which the heater and the strip-shaped member are mounted;

a Peltier element for keeping temperature level of the predetermined temperature distribution of the grating at a predetermined level;

a temperature sensor for detecting the temperature of the optical fiber;

a Peltier element control circuit for controlling the peltier element based on the temperature of the optical fiber detected by the temperature sensor; and

an optical circuitry for inputting an optical signal to the grating and for outputting the optical signal reflected on the grating.

14. A method of manufacturing an optical fiber holding device comprises an optical fiber having a grating; a heater for heating the grating to a predetermined temperature distribution; a strip-shaped member, having a rectilinear groove in which the optical fiber is accommodated, and a gel substance contacting with the optical fiber is filled; and a substrate on which the heater and the strip-shaped member are mounted, said method comprising the steps of

filling the gel substance in the groove of the strip-shaped member;

accommodating the optical fiber in the groove of the strip-shaped member in which the gel substance is filled;

mounting the strip-shaped member, in which the gel substance is filled and the optical fiber is accommodated, on the substrate on which the heater is mounted; and

moving the strip-shaped member on the substrate so as to carry out a positioning of the groove with respect to the heater.

15. An method of manufacturing an optical fiber holding device comprises an optical fiber having a grating; a heater for

heating the grating to a predetermined temperature distribution; a strip-shaped member, having a rectilinear groove in which the optical fiber is accommodated, and a gel substance contacting with the optical fiber is filled; and a substrate on which the heater and the strip-shaped member are mounted; said method comprising the steps of

securing the strip-shaped member on the substrate on which the heater is mounted;

filling the gel substance in the groove of he strip-shaped member secured on the substrate;

inserting and accommodating the optical fiber in the groove of the strip-shaped member in which the gel substance is filled; and

moving the optical fiber on the heater so as to carry out a positioning of the grating with respect to the heater.

16. A method of manufacturing an optical fiber holding device comprises an optical fiber having a grating; a heater for heating the grating to a predetermined temperature distribution; a strip-shaped member, having a rectilinear groove in which the optical fiber is accommodated, and a gel substance is filled; and a substrate on which the heater and the strip-shaped member are mounted, said method comprising the steps of

mounting the optical fiber on the heater which is mounted on the substrate;

coating the optical fiber mounted on the heater with a gel substance;

mounting the step-shaped member on the substrate and accommodating the optical fiber in the groove of the strip-shaped member; and

moving the strip-shaped member on the substrate so as to carry out a positioning of the grating with respect to the heater.